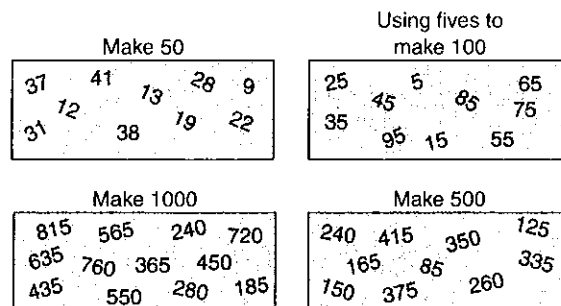


Compatible numbers for addition and subtraction are numbers that go together easily to make nice numbers. Numbers that make tens or hundreds are the most common examples. Compatible sums also include numbers that end in 5, 25, 50, or 75, since these numbers are easy to work with as well. The teaching task is to get students accustomed to looking for combinations that work together and then looking for these combinations in computational situations.

## ACTIVITY 2.19

### Compatible Pairs

Searching for compatible pairs can be done as a worksheet activity or with the full class using the overhead projector. Prepare a transparency, or duplicate a page with a search task. Five possibilities of different difficulty levels are shown in Figure 2.12. Students call out or connect the compatible pairs as they see them.



**FIGURE 2.12** ..... Compatible-pair searches.

Here are two more activities that combine some of the ideas we have been exploring.

## ACTIVITY 2.20

### Calculator Challenge Counting

Students press any number on the calculator (e.g., 17), then  $\boxed{+}$  8. They say the sum before they press  $\boxed{=}$ . Then they continue to add 8 mentally, challenging themselves to say the number before they press  $\boxed{=}$ . They should see how far they can go before making a mistake.

The constant addend in "Challenge Counting" can be any number, even a two- or three-digit number. Try 20 or 25. Try 40 and then 48. As an added challenge, after a student has progressed eight or ten counts, have the student reverse the process by pressing  $\boxed{-}$  followed by the same number and then  $\boxed{=}$ ,  $\boxed{=}$ , . . . . Discuss patterns that appear.

## ACTIVITY 2.21

### Little Ten-Frame Addition and Subtraction

Provide a set of little ten-frame cards for each of two students. Each student makes a number with his or her cards. When both have their number ready, they place it out so both can see. Then they try to be the first to tell the total. For the subtraction version, one student makes a number greater than 50 and the other writes a number on paper that is less than 50. The written number is to be subtracted from the modeled number. Students should be encouraged to share strategies to see how fast they can get.

Although activities like those in this section can be done independently or in pairs, it is good to occasionally do them with the full class so that strategies can be discussed.